

AMENDED CLAIMS

[received by the International Bureau on 27 October 2003 (27.10.03);
original claim 8 canceled; remaining claims unchanged]

1. A method of forming a prosthetic valve, comprising:
 - a. providing a tube of material having an inner wall, an outer wall, a diameter "d", a height "h" and a wall thickness "t";
 - b. cutting three longitudinal incisions from one end in said material about 120 degrees apart to form three flaps, each said flap having a first edge, a second edge generally parallel to said first edge, and a bottom edge;
 - c. involuting each said flap within said tube; and,
 - d. attaching each said first edge and second edge of each involuted flap to said inner wall of said tube.
2. The method of Claim 1, wherein said three longitudinal incisions have a length "L", such that $L = \frac{1}{2}h - 2t$, where "h" is the cylinder height and "t" is the thickness of said tube.
3. The method of Claim 1, wherein said height "h" is approximately equal to the diameter of the recipient aortic annulus diameter "A".
4. The method of Claim 1, wherein the edges of each flap are cut to be rounded off along their free edge to create concave shaped leaflets.
- 20 5. The method of Claim 1, wherein scallop shaped segments of said tube wall are removed between commissures.
6. The method of Claim 1, wherein said attaching is achieved by suturing.
7. The method of Claim 1, wherein said tube is comprises a generally rectangular sheet of material that has two opposing sides joined together.
- 25 8. Canceled

9. An autologous valve formed by a process, comprising:

- a. providing a tube of material having an inner wall, an outer wall, a diameter "a", a height "b" and a wall thickness "t";
- 5 b. cutting three longitudinal incisions from one end in said material about 120 degrees apart to form three flaps, each said flap having a first edge, a second edge generally parallel to said first edge, and a bottom edge;
- c. involuting each said flap within said tube; and,
- 10 d. attaching each said first edge and second edge of each involuted flap to said inner wall of said tube.

10. A method of converting a tube into a valve, comprising:

- a. providing a tube of material having an inner wall, an outer wall, a diameter "a", a height "b" and a wall thickness "t";
- 15 b. cutting three longitudinal incisions from one end in said material about 120 degrees apart to form three flaps, each said flap having a first edge, a second edge generally parallel to said first edge, and a bottom edge;
- c. involuting each said flap within said tube; and,
- d. attaching each said first edge and second edge of each involuted flap to 20 said inner wall of said tube.

11. A endovascular valve, comprising:

- a. a flexible tube having a first end and a second end, an inner wall and an outer wall;
- b. a plurality of leaflets formed from a portion of said first end by making a plurality of longitudinal incisions in said downstream end to form a plurality of flaps, each flap having a first edge and second edge, involuting said flaps toward said inner wall and securing said first edge and second edge of each flap to said inner wall of said tube

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